

# Notice of Allowability

Application No.

09/697,419

Examiner

Tuan A. Vu

Applicant(s)

MCNUTT, ALAN

Art Unit

2193

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/12/2006.
2. ☒ The allowed claim(s) is/are 4-11 (renumbered 1-8).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

1. This action is responsive to the Applicant's Appeal Brief filed 6/12/2006.

As indicated in the Brief, claims 4-11 are pending in the Office action.

In view of the issues presented in the Appeal Brief, as well as the Applicant's arguments in regard to the prior art and the pertinent grounds of rejection, the finality of the previous Office Action is herein withdrawn. Following is the Office Action addressing the claims 4-11 as previously presented.

### ***EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE***

2. Claims 4-11 are allowed.

The following is an examiner's statement of reasons for allowance.

The prior art taken separately or jointly does not suggest or teach the following features.

(i) Compiling a symbolic user program in a communication device separable from a single chip execution device having a reprogrammable memory therein to store said user program as a binary programmable logic control program to be executed by said single-chip execution device, said binary programmable logic program adapted to operate a programmable logic controller, said programmable logic controller lacking memory device external to said single-chip execution device as recited in claims 4-5, 7, 9, and 11;

(ii) such compiling combining said symbolic user program as a binary module with a system support kernel to form a single binary executable module (as recited in claim 4, 7, 9, and 11), or said programmable logic binary (as recited in claim 5); said support kernel to provide programmable logic controller with operating system functions comprising sequencing the user program, as recited in claims 4, 5, 7, 9, and 11.

The prior art, **Webb**, 'Programmable Logic Controller', discloses a generic single unit including microcontroller, communication devices, I/O interfaces and memory, said memory organized in ROM with core code to perform basic functions and a programmable section memory to store user code that may be high-language program and compiled instructions transferred from an external communication device to effect the Programmable Logic controlling sequences needed to address the I/O and timing operations of the PLC; but Webb fails to disclose or suggest that the compilation of user code comprises kernel support to provide the programmable logic controller with operating system functions comprising sequencing the user program, the user code and the kernel support being combined from the compilation to form one binary executable as in (ii); and that this binary executable is stored in the programmable memory part in a single chip execution device, such single chip device adapted to operate the PLC, said programmable logic controller lacking memory device external to said single-chip execution device as in (i). That is, Webb discloses transferring a compilation and store it as the user command sequences in the programmable memory while the core operating code is fixed in the ROM of the PLC main unit -- which is not what is required in (ii); such PLC control unit having a execution device, a microcontroller, as well as a memory having both fixed ROM and programmable memory, such memory being external to the microcontroller, the main unit not being a single-chip device -- which is not what is required by (i).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Conclusion*

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (272) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571)272-3719.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 ( for non-official correspondence – please consult Examiner before using) or 571-273-8300 ( for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VAT  
August 25, 2006

  
KAKALI CHAKI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100